

# Derek Ni

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<https://derekni.com> | <https://github.com/derekni>

## EDUCATION

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### Cornell University

Ithaca, NY

B.S. Computer Science, GPA: 4.13

Expected May 2022

Courses: Intro to Algorithms, Object Oriented Programming and Data Structures, Functional Programming, Intro to Backend Development, Intro to Database Systems, Foundations of AI, Discrete Structures

## PERSONAL PROJECTS

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### TaskTime | Swift, XCode

- Productivity app to motivate users to complete to-dos and keep healthy habits
- Identified procrastination problem for many students with a need for a way to improve productivity
- Developed an app using points with gamified to-do list to motivate students

### Johnny Jumper | JavaScript, Phaser

- A 2D mobile jump game where the player jumps from platform to platform to reach the sky
- Developed with simple tap-and-hold gameplay to be accessible to everyone
- Optimized by creating sub-maps instead of one large map and reducing tile layers

### Jimmy Jumper | C#, Unity

- A 3D mobile runner game where the player runs and jumps on platforms in the sky
- Modified physics to improve gameplay and optimized by creating and destroying objects as needed

## WORK EXPERIENCE

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### MITRE Corporation

McLean, VA

Software Engineer Intern

May 2020 – August 2020

- Automated testing of synthetic audio ML models using shell scripts, Amazon Transcribe and SCLite
- Improved ML models by creating spreadsheets from data evaluations to cherry-pick training data
- Generated synthetic images using WGANs, LSGANs, and DCGANs training on the CIFAR-10 dataset

### Cornell University

Ithaca, NY

CS 2110 Consultant

August 2020 – Present

- Hosted weekly office hours to help students with object-oriented programming concepts
- Graded and gave feedback on coding assignments, quizzes and exams

## ORGANIZATIONS

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### Cornell ACSU

Ithaca, NY

Academic Officer

October 2019 – Present

- Organized academic events for students interested in computer science
- Led collaboration with Cornell AppDev to increase outreach with an iOS workshop

### Southgate GIVE

Reston, VA

Center Manager

September 2017 – June 2019

- Managed volunteer tutoring program targeted towards elementary schoolers
- Created roadmaps for students to improve their math and reading by 1-2 grade levels over school year
- Advertised through social media, emails and partnerships with local elementary schools

## SKILLS & INTERESTS

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**Skills:** Python, Java, C#, Swift, JavaScript, OCaml, HTML and SQL

**Interests:** Snowboarding, meditating, tennis, podcasts and running